

**REMARKS**

Claims 1-11, 14-17, 19 and 32 are pending after entry of the instant amendment. Claims 5-7, 15-16, and 19 have been canceled and claims 1, 8, 14, 17, and 32 have been amended. Support for the amendments can be found throughout the specification and figures, specifically at paragraphs [0171]-[0174] and [0180]-[0184]. For the reasons detailed below, Applicants respectfully request the rejections be withdrawn and the claims be allowed to issue.

**The Claims have Sufficient Written Description Support**

Claims 1-4, 6-11, and 14-17 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner contends that because Claim 5 depends from Claim 1 and Claim 5 specifically identifies the ATF5 inhibitor of Claim 1 “is selected from the group consisting of ATF5 antibody, siRNA, dominant negative ATF5, and antisense RNA”, the genera of inhibitors in Claim 1 is implied to be broader than the recited group in dependent Claim 5. Based on this implication, the Examiner argues that the full scope of such inhibitors is not sufficiently described. Specifically, the Examiner points out that the specification teaches that ATF5 inhibitors may be antibiotics and small molecules, but, allegedly, does not sufficiently describe them to establish possession of those inhibitors at the time the application was filed.

Claims 6-7 and 15-16 have been canceled, thus their rejection under 35 U.S.C. § 112, first paragraph, has been rendered moot.

Applicants note that the pending claims are directed to dominant negative ATF5 inhibitors of ATF5 activity. As noted by the examiner, the elected species of dominant negative ATF5 inhibitors has been fully considered and no issue regarding written description support

was raised for that species. Accordingly, Applicants respectfully request withdrawal of the instant rejection.

**The Claims Do Not Incorporate “New Matter”**

Claim 32 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the Written Description requirement. In particular the Examiner contends that the method described in Claim 32 recites the use of a “fluorescent protein”, which encompasses a genus of fluorescent proteins. The Examiner asserts that such a genus includes “new matter” as the specification allegedly only provides support for the use of the species eGFP in such a method. Applicants respectfully traverse this rejection.

Without acquiescing in the propriety of this rejection, and solely in the interest of expediting prosecution of the instant application, Claim 32 has been amended such that it is directed to methods that employ eGFP. Accordingly, Applicants respectfully request withdrawal of the instant rejection.

**The Claims are Enabled**

The Examiner has rejected claims 1-11, 14-17, and 19 under 35 U.S.C. § 112, first paragraph, as lacking enablement. In particular, the Examiner contends that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or which it is most nearly connected, to make and/or use the invention. The Examiner contends that the specification is enabling for an *in vitro* method of promoting differentiation of neural stem cells comprising inhibiting ATF5, but does not, according to the Examiner, reasonably provide enablement for an *in vivo* or *ex vivo* method of

promoting differentiation of neural stem cells comprising inhibition of ATF5 or transplanting the neural cells into a subject including humans and embryos.

Claims 5-7, 15-16, and 19 have been canceled, thus their rejection under 35 U.S.C. § 112, first paragraph, as lacking enablement has been rendered moot.

Without acquiescing in the propriety of this rejection, and solely in the interest of expediting prosecution of the instant application, the pending claims have been amended such that they are directed to methods of promoting neural differentiation *in vitro*. Accordingly, Applicants respectfully request withdrawal of the instant rejection.

### **The Claims are Novel**

The Examiner has rejected claims 1-3, 7, 12, 14, 16 and 18 under 35 U.S.C. § 102(b) as being anticipated by Angelastro et al. In particular, the Examiner argues that the instant specification defines “a specific ATF5 inhibitor” so broadly that the non-specific inhibitor of ATF5 disclosed in Angelastro et al., NGF, is encompassed by that definition, and thus anticipates the claims. Applicants respectfully traverse this rejection.

As pointed out above, the pending claims are directed to inhibition by dominant negative ATF5. In light of this, Applicants respectfully submit that the Examiner’s contention that the claims encompass the non-specific inhibitor has been rendered moot. Accordingly, Applicants respectfully request withdrawal of the instant rejection.

**CONCLUSION**

Entry of the foregoing remarks into the file of the above-identified application is respectfully requested. Applicants believe that the invention described and defined by Claim 1-11, 14-17, 19, and 32 are in condition for allowance. Withdrawal of all rejections and reconsideration of the amended claims is requested. An early allowance is earnestly sought.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'SL', followed by a horizontal line.

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